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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/700,808

Applicant: Robert T. Bigelow

Filed: 11/04/2003

Title: Cover for use with an Inflatable  
Modular Structure

TC/A.U.: 3633

Examiner: A, Phi Dieu Tran

Docket No.: BA-U-COV-00010

Confirmation No.: 4771

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REPLY BRIEF

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The present Reply Brief is submitted pursuant to 37 CFR 41.41; MPEP 1208.

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## **I. REAL PARTY IN INTEREST**

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The real party in interest is Bigelow Aerospace, North Las Vegas, NV, by assignment recorded 11/04/2003 (: Reel 015471, Frame 0908). The inventor of the present application assigned his interests to Bigelow Aerospace by assignment executed on 11/04/2003.

## **II. STATUS OF CLAIMS**

As admitted in the Examiner's Answer, the statement of the status of the claims in the brief is correct and reproduced below:

Claims rejected: 1-4, 6-11, 13-18, and 20-21

Claims appealed: 1-4, 6-11, 13-18, and 20-21

Claims pending: 1-4, 6-11, 13-18, 20-21, and 25

Claims allowed: none

Claims withdrawn: 5, 12, 19, 22- 24, and 26-29

Claims cancelled: none

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### **III. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Whether claim 1-4, 6-11, 13-18, 20-21, and 25 are unpatentable under 35 USC § 102 for being anticipated by Stewart (USPN 6,892,497; “Moon”).

## **IV. ARGUMENT**

### **New Ground of Rejection**

A test of whether the examiner made a new ground of rejection is whether appellant has had a fair opportunity to react to the thrust of the rejection. *In re Kronig*, 503 F.2d 1300, 1302-03, (CCPA 1974) (“*Kronig*”). In the Office Action that prompted the Appeal, the alleged “ribs” were not identified by any numerical reference as to the figures in the prior art cited. As such, Applicant had to presume what constituted “ribs” in the Appeal. The Examiner’s Answer (“Answer”) currently identifies the “ribs” as items 430 and 432. Further, the Answer for the first time cites to a case regarding the pertinence and scope of the prior art.

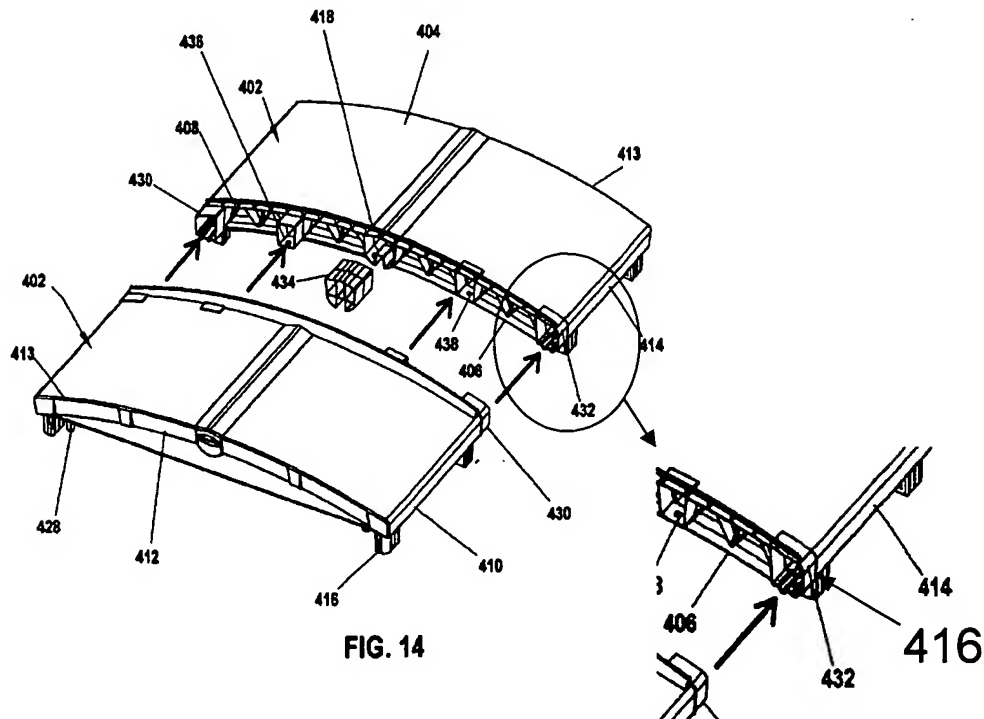
Based upon this new information, and argument, Applicant believes there is a new ground of rejection pursuant to *Kronig* and submits this Reply in conformance with the rules concerning a reply as to a new ground of rejection. The facts of record are relied upon and no new evidence is introduced.

### **Claim 1**

#### **Attachment elements**

The Answer identifies “attachment elements” of claim 1 as item 416 and the “ribs” in claim 1 as items 430 and 432 in Figures 2, 14 and 15 of U.S. Patent number 6,892,497 to Moon et al (“Moon”).

Figure 14 of Moon is representative and referenced below (along with an amplified section):



The amplified section of Figure 14 clearly shows that item 416 does not come into contact with item 432. Nothing in the disclosure of Moon identifies item 416 (the alleged attachment element) contacting item 432. Rather, item 416 is clearly offset and away from 432.

The claims at issue require even more interaction between the ribs and the attachment elements that mere contact. Claim 1 identifies, "...attachment elements disposed on the ribs..." (emphasis added). Certainly, Figure 14 does not show attachment elements disposed on the alleged ribs.



Figure 14 also does not show attachment elements disposed on item 430. Such a configuration would not be possible as to item 430. Moon identifies 430 as “interlocking posts” and 432 as “sockets” (Moon column 8, lines 48-50). These structures operate as:

“...sockets 432 for receiving the interlocking posts 430 for attaching the like-configured panels together into a roof assembly.”

Moon column 8, lines 50-52. Item 430 is an “interlocking post” that is designed to fit into a “socket”. Nothing in Moon indicates a “post” having any structure attached – like an attachment element. This makes sense as nothing in Moon discloses that an interlocking post should have any appendages. Such appendages would hinder, if not preclude, the post entering the socket.

Figure 14 clearly shows that item 416 does not come into contact with items 430 or 432 – much less in any way that would anticipate claim 1 of the instant invention.

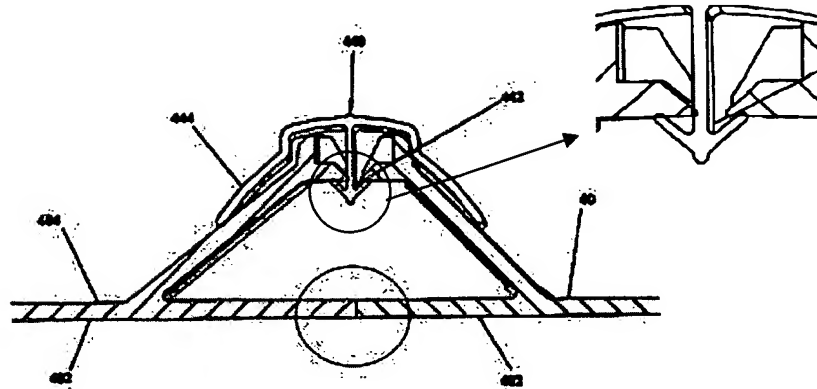
As such, Moon is not an anticipatory reference and the claims should be allowed.

## **Affixing Members**

### **a. Moon**

The Answer states as to Figure 17 that, “The part 440 is held in place by the affixing members (the structure which supports and holds in place the part 440).” (Emphasis added).

Figure 17 is identified below (including two circles to identify important elements).



**FIG. 17**

According to the Answer's argument, an affixing member must support and hold in place item 440 to qualify as an affixing member. Such a position is not supported in Moon.

From inspection of the circled portions above, it is clear that there are two alleged first segments each having an alleged affixing member. Moon discloses that the combination of the two first segments (each segment having its own independent affixing member) supports and holds in place item 440. Nothing in Moon discloses that an affixing member on a single first segment alone supports and holds item 440.

#### **b. Reasonable Interpretation**

The Answer asserts that the claims are, "...given the broadest reasonable interpretation consistent with the specification." However, the Answer does not make mention as to what the specification of the instant application identifies as a reasonable interpretation of the term, "affixing member." "...the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as

they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (“*Morris*”). The specification identifies:

“[0050] In the preferred embodiment, the affixing members 136 and 138 are made of Velcro. However, other types of affixing members such as, but not limited to, magnetic strips could be used. In any case, the cover 100 is removably attached in this way to the internal surface 134.”

Thus, the specification details how the affixing member cooperates with the internal surface of the soft cover in a removably attached fashion. This is also identified in claim 1;

“...at least one affixing member for cooperating with at least one affixing member on the interior surface of the inflatable shell such that the arcuate exterior surface is removably attached to the interior surface of the inflatable shell during the deployed configuration ...”

Moon discloses sharp and pointed features as to the alleged affixing member that would damage the soft cover. Further, nothing in Moon is directed to attachment to a soft cover. Further still, Moon does not address an affixing member that is removably attached to the interior surface of an inflatable cover. Extending the definition of, “affixing member” to include Moon is not a reasonable interpretation.

The Answer fails to support anticipation of the instant application by the Moon reference.

### **Substantially Flat**

The Answer alleges that Figure 26 of Moon identifies a “substantially flat” second segment as in claim 1.

Figure 26 is reproduced below:

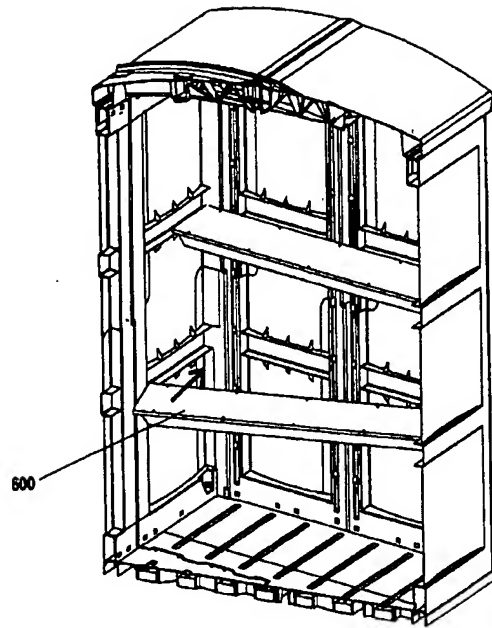


FIG. 26

The second segment as argued in the Office Action is part of the top of Figure 26. Review of Figure 26 clearly shows the alleged first and second segments are curved. Nothing in the Moon reference states that either one is flat or substantially flat. Further, the Answer does not address the issue that since the alleged first and second segments share the same curvature there is no rational for calling these surfaces “arcuate” and at the same time “substantially flat.” Without such support, whichever term is applied to the Moon reference, the other term would not be applicable and therefore that claim element would not be met in the Moon reference.

The Answer fails to support anticipation of claim 1 by the Moon reference.

## **Claim 2**

The limitations as identified supra in claim 1 are also present in dependent claim 2. For the reason stated in the argument as to claim 1, claim 2 is also not anticipated by the Moon patent.

## **Claim 3**

Claim 3 depends from claim 2 and includes the limitation that the core further comprises at least two longerons and the cover has a width and each longerons having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons. Nothing in the Moon patent identifies longerons, or a cover, or a width in relation to a cover and a longeron.

## **Claim 4**

The limitations as identified supra in claim 1 are also present in dependent claim 4. For the reason stated in the argument as to claim 1, claim 4 is also not anticipated by the Moon patent.

## **Claim 6**

The limitations as identified supra in claim 1 are also present in dependent claim 6. For the reason stated in the argument as to claim 1, claim 6 is also not anticipated by the Moon patent.

### **Claim 7**

The limitations as identified supra in claim 1 are also present in dependent claim 7. For the reason stated in the argument as to claim 1, claim 7 is also not anticipated by the Moon patent.

### **Claim 8**

The limitations as identified supra in claim 1 are also present in dependent claim 8. For the reason stated in the argument as to claim 1, claim 8 is also not anticipated by the Moon patent.

### **Claim 9**

The limitations as identified supra in claim 1 are also present in independent claim 9. For the reason stated in the argument as to claim 1, claim 9 is also not anticipated by the Moon patent.

Claim 9 identifies that the attachment elements on the ribs cooperating with the attachment elements on the braces such that the cover is removably attached to the braces. Nothing in the Moon patent identifies attachment elements on ribs or on braces much less that the attachment elements cooperate such that the cover is removably attached to the braces.

### **Claim 10**

Claim 10 depends from claim 9 wherein the core further comprises at least two longerons and the cover has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons. Nothing in the Moon patent identifies a cover, a

longeron, or describes a width in regards to a cover and longerons. Nothing in the Answer identifies Moon as anticipating prior art for a width that is tied to the distance between two longerons.

#### **Claim 11**

The limitations as identified supra in claim 9 are also present in dependent claim 11. For the reason stated in the argument as to claim 9, claim 11 is also not anticipated by the Moon patent.

#### **Claim 13**

The limitations as identified supra in claim 9 are also present in dependent claim 13. For the reason stated in the argument as to claim 9, claim 13 is also not anticipated by the Moon patent.

#### **Claim 14**

The limitations as identified supra in claim 1 are also present in independent claim 14. For the reason stated in the argument as to claim 1, claim 14 is also not anticipated by the Moon patent.

Nothing in the Moon patent identifies a cover as in claim 14, or longerons, or a first segment having an arcuate exterior surface disposed generally opposite of the interior surface and along the length of the longitudinal axis, or ribs, or ribs having a plurality of attachment elements, or the attachment elements on the ribs cooperating with the attachment elements on the longerons such that the cover is removably attached to the longerons.

**Claim 15**

Claim 15 depends from claim 14 wherein the cover has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons. Nothing in the Moon patent identifies a cover for a spacecraft, longerons, a width of a cover, or that the width of the cover is related to the distance between longerons.

**Claim 16**

The limitations as identified supra in claim 14 are also present in dependent claim 16. For the reason stated in the argument as to claim 14, claim 16 is also not anticipated by the Moon patent.

**Claim 17**

The limitations as identified supra in claim 14 are also present in dependent claim 17. For the reason stated in the argument as to claim 14, claim 17 is also not anticipated by the Moon patent.

**Claim 18**

The limitations as identified supra in claim 14 are also present in dependent claim 18. For the reason stated in the argument as to claim 14, claim 18 is also not anticipated by the Moon patent.



### **Claim 20**

The limitations as identified supra in claim 14 are also present in dependent claim 20. For the reason stated in the argument as to claim 14, claim 20 is also not anticipated by the Moon patent.

### **Claim 21**

The limitations as identified supra in claim 1 are also present in independent claim 21. For the reason stated in the argument as to claim 1, claim 21 is also not anticipated by the Moon patent.

### **Claim 25**

According to the Office Action of 12/12/2008, claim 25 is withdrawn. According to the Answer, claim 25 would be allowable if claim 2 were allowed. Claim 25 addresses a method of using a cover with a core of an inflatable modular structure having a plurality of attachment elements thereon and an inflatable shell which utilizes the cover of claim 2.

## **V. In re Oetiker**

The Answer cites *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Ci. 1992) ("*Oetiker*"). The Appeal does not reference *Oetiker*. The point made by the Applicant in the Appeal was that the prosecution has failed to take into account the technology of the invention, or direction in the specification, as would be required by one of skill in the art for anticipation. See *Morris* supra. Further, The Answer does not establish that any of the prior art is reasonably pertinent to the problem with which the applicant was concerned as required by *Oetiker*. For this reason *Oetiker* is adverse to the Answer.

## VI. LINKING CLAIM

The Answer admits claim 25 is a linking claim. The Answer then states that the claim was withdrawn as part of the Restriction Requirement of 3/21/06 (the "Restriction"). As evidenced in the prosecution history, claim 25 is not mentioned anywhere in the Restriction. Applicant noted such to the Examiner as identified in response to the Restriction – a response that did not withdraw claim 25.

To be accurate, Applicant did withdrawn claim 25 on 10/25/2007 and 2/07/2008 as noted in the Answer. However, subsequently, the Examiner reintroduced claim 25 into the active prosecution by including claim 25 in the office action dated 6/30/2008. Applicant did not object to the Examiner's reintroduction of claim 25 into the prosecution of the application at that time. The first appeal brief that resulted from the Office Action of 6/30/2008 also addressed claim 25.

Then in the Office Action dated 12/12/2008, reopening prosecution, the Examiner re-categorized claim 25 as withdrawn without discussion with the Applicant.

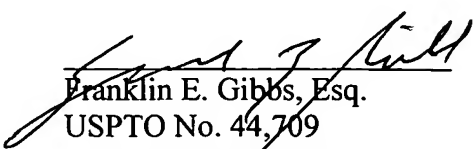
## VII. CONCLUSION

The Answer does not establish anticipation of the instant claims.

If the Applicant's attorney can be of any further assistance, please call the undersigned at the number provided.

Respectfully submitted,

Dated: July 16, 2009

  
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